AMENDMENTS TO THE SPECIFICATION

Please **revise the paragraph beginning on page 10, line 14** as follows:

As further shown in FIG. 4, a service channel emitter 41 supplies a service channel to a coupler or wavelength division multiplexer 45 that combines the service channel onto fiber 16. The service channel propagates along fiber 16 with the optical signals output from transmitters 12 to dispersion compensation module 18, shown in greater detail in Fig. 5. Module 18 includes a wavelength selective coupler 61to separate the service channel from the other optical signals carried by fiber 16. A control circuit including the following first, second and third circuits controls the temperature of the DCF in accordance with information carried by the service channel optical signals. The first circuit, service channel receiver 54, senses the service channel signals, converts them to electrical sense signals, and supplies the sense signals to the second circuit, processor 56, ~~each of which are~~the service channel receiver 54 and the processor 56 typically being housed in node controller 52. In response to the sense signals, processor 56 outputs a temperature signal indicative of a desired temperature for DCF 32 to a third circuit, including controller 38 and thermal regulator circuit 34, which, in turn, adjusts the temperature of DCF 32 accordingly. Optionally, controller 38 further outputs appropriate signal to thermal regulator 34, for ~~controller~~

controlling the temperature of DCF 32' in accordance with additional information carried by the service channel optical signals.

Please **revise the paragraph beginning on page 12, line 9** as follows:

The error signal is communicated to node controllers 52 preferably through a service channel transmitted by a service channel emitter (similar to service channel emitter 41) on an alternative optical path or fiber 72, shown in Fig. 7. Coupler 73 separates the service channel from any other optical signals present on the alternative optical path or fiber 72 and supplies them to an optical service channel receiver in much the same fashion as that described above in connection with Fig. 5. Information or data carried by the service channel is then ~~sued~~ used to adjust the temperature of DCFs 32 and 32' in a manner similar to that described above. Information output from processor 56 in Fig. 7 is used by service channel emitter 65 to generate additional service channel signals, which are combined onto the alternative optical path or fiber 72 by coupler 71 and propagate in the direction indicated by the arrow extending from coupler 71 in Fig. 7.